

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A desulfurization method comprising removing sulfur content from a liquid hydrocarbon ~~by use of~~ with a metallic desulfurizing agent, ~~characterized in that the~~ wherein said method employs desulfurization conditions satisfying the following formula (1):

$$1.06 \times P_{ope}^{0.44} < T_{ope}/T_{50} < 1.78 \times P_{ope}^{0.22} \dots (1)$$

(wherein wherein T_{ope} represents operation temperature ($^{\circ}\text{C}$) in $^{\circ}\text{C}$; P_{ope} represents operation pressure (MPa) in MPa ; and T₅₀ represents a temperature per 50 percent recovered as determined by “test method for distillation at atmospheric pressure” stipulated in JIS K2254 “Petroleum products - Determination of distillation characteristics.” ~~characteristics~~”).

Claim 2 (Currently Amended): The desulfurization method according to Claim 1, wherein the desulfurization conditions satisfy the following formula (2):

$$1.19 \times P_{ope}^{0.35} < T_{ope}/T_{50} < 1.68 \times P_{ope}^{0.24} \dots (2)$$

(wherein T_{ope}, P_{ope}, and T₅₀ are the same as defined in Claim 1).

Claim 3 (Currently Amended): The desulfurization method according to Claim 1 or 2, wherein the method employs no hydrogen addition.

Claim 4 (Currently Amended): The desulfurization method according to ~~any one of~~ ~~Claims 1 to 3~~ Claim 1, wherein the metallic desulfurizing agent comprises a porous inorganic oxide and a metallic element ~~including~~ comprising at least nickel (Ni) supported thereon.

Claim 5 (Original): The desulfurization method according to Claim 4, wherein the metallic desulfurizing agent is a nickel-copper-based desulfurizing agent.

Claim 6 (Currently Amended): The desulfurization method according to ~~any one of~~ ~~Claims 1 to 5~~ Claim 1, wherein the liquid hydrocarbon is one species selected from the group consisting of a gasoline fraction, a kerosene fraction, and a gas oil fraction.

Claim 7 (Currently Amended): A method for producing hydrogen ~~for use in a fuel cell, characterized in that the~~ said method ~~comprising~~ comprises reforming a liquid hydrocarbon which has been desulfurized through [[a]] said desulfurization method as ~~recited in any one of Claims 1 to 6 claimed in~~ Claim 1 to produce said hydrogen.

Claim 8 (Currently Amended): The method for producing hydrogen ~~for use in a fuel cell~~ according to Claim 7, wherein the reforming is partial-oxidation reforming, autothermal reforming, or steam reforming.

Claim 9 (Currently Amended): The method for producing hydrogen ~~for use in a fuel cell~~ according to Claim 8, wherein said partial-oxidation reforming, said autothermal reforming, or said steam reforming is performed in the presence of a reforming catalyst ~~containing~~ comprising ruthenium or nickel.

Claim 10 (Currently Amended): The method for producing hydrogen ~~for use in a fuel cell~~ according to Claim 9, wherein the reforming catalyst ~~contains~~ comprises manganese oxide, cerium oxide, or zirconium oxide.

Claim 11 (New): A method for producing a desulfurized liquid hydrocarbon, said method comprising removing sulfur content from a liquid hydrocarbon with a metallic desulfurizing agent to produce said desulfurized liquid hydrocarbon, wherein said method employs desulfurization conditions satisfying the following formula (1):

$$1.06 \times P_{ope}^{0.44} < T_{ope}/T_{50} < 1.78 \times P_{ope}^{0.22} \dots (1)$$

wherein T_{ope} represents operation temperature in °C; P_{ope} represents operation pressure in MPa; and T_{50} represents a temperature per 50 percent recovered as determined by “test method for distillation at atmospheric pressure” stipulated in JIS K2254 “Petroleum products - Determination of distillation characteristics.”